



Rec'd PTO 13 SEP 2002  
09/830228

#6

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Fraser et al.

Attorney Docket No.: PB370US

Application Serial No.: 09/830,228

Art Unit: Not yet assigned

Filed: April 24, 2001

Examiner: Not yet assigned

Title: *Borrelia burgdorferi* Polynucleotides and Sequences

**STATEMENT OF MEDIMMUNE, INC. UNDER 37 C.F.R. §§ 3.73 AND 1.48(a)(5)**

Commissioner for Patents  
Washington, DC 20231

Sir:

**Statement Under 37 C.F.R. § 3.73**

MedImmune, Inc. ("MedImmune"), organized and existing under the laws of the State of Delaware, having its principal place of business at 35 West Watkins Mill Road, Gaithersburg, MD 20878, states that at present, it is an assignee of less than the entire right, title and interest for the above-identified patent by virtue of an assignment from Raju Lathigra (a presently-named inventor of the above-identified application), a copy of which is attached herewith. The extent (by percentage) of MedImmune's ownership is 16.67% (1 of 6 presently-named inventors). Once the request to correct inventorship submitted herewith is granted, the extent (by percentage) of MedImmune's ownership will be 14.29% (1 of 7 inventors).

The undersigned, whose title is supplied below, is empowered to sign this document on behalf of MedImmune.

**Statement Under 37 C.F.R. § 1.48(a)(5)**

In accordance with the Request to Correct Inventorship submitted herewith,  
MedImmune agrees to the proposed change of inventorship adding Sherwood Casjens as  
an inventor of the above-captioned patent application.

For: MedImmune, Inc

Signature: 

Name: Timothy R. Pearson

Title: Vice President, Treasurer & Secretary

Date: 8/9/02



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Application of: Fraser et al.

Attorney Docket No.: PB370US

Application Serial No.: 09/830,228

Art Unit: Not yet assigned

Filed: April 24, 2001

Examiner: Not yet assigned

Title: *Borrelia burgdorferi* Polynucleotides and Polypeptides

STATEMENT OF SHERWOOD CASJENS UNDER 37 C.F.R. § 1.48(a)(2)

Commissioner for Patents  
Washington, DC 20231

Sir:

I was erroneously omitted as an inventor of the above-captioned patent application.  
This error occurred without any deceptive intention on my part.

Dated: 6-21-02

  
\_\_\_\_\_  
Sherwood Casjens

1360 2nd Ave.  
Salt Lake City, UT 84103



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09/830228 #6

VIA HAND DELIVERY SEPTEMBER 13, 2002

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Fraser et al.

Attorney Docket No.: PB370US

Application Serial No.: 09/830,228

Art Unit: Not yet assigned

Filed: April 24, 2001

Examiner: Not yet assigned

Title: *Borrelia burgdorferi* Polynucleotides and Sequences

**STATEMENT OF HUMAN GENOME SCIENCES, INC.  
UNDER 37 C.F.R. §§ 3.73 AND 1.48(a)(5)**

Commissioner for Patents  
Washington, DC 20231

Sir:

**Statement Under 37 C.F.R. § 3.73**

Human Genome Sciences, Inc. ("HGS"), organized and existing under the laws of the State of Delaware, having its principal place of business at 9410 Key West Avenue, Rockville, Maryland 20850, states that at present, it is an assignee of less than the entire right, title and interest for the above-identified patent by virtue of a chain of title from five of the presently-named inventors of the patent application identified above, to HGS as shown below:

1. From: Claire Fraser, Owen R. White, Rebecca Clayton, Brian A. Dougherty, and Hamilton O. Smith  
To: The Institute of Genomic Research ("TIGR")  
A copy of the document is attached.
2. From: TIGR  
To: HGS  
A copy of the document is attached.

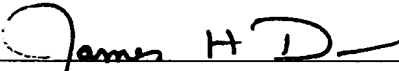
The extent (by percentage) of HGS's ownership is 83.33% (5 of 6 presently-named inventors). Once the request to correct inventorship submitted herewith is granted, the extent (by percentage) of HGS's ownership will be 71.43% (5 of 7 inventors).

The undersigned, whose title is supplied below, is empowered to sign this document on behalf of HGS.

**Statement Under 37 C.F.R. § 1.48(a)(5)**

In accordance with the Request to Correct Inventorship submitted herewith, HGS agrees to the proposed change of inventorship adding Sherwood Casjens as an inventor of the above-captioned patent application.

For: Human Genome Sciences, Inc

Signature: 

Name: James H. Davis, Ph.D.

Title: Senior Vice President, General Counsel, and Secretary

Date: September 13, 2002

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, **Claire Fraser, Owen R. White, Rebecca Clayton, Brian A. Dougherty, and Hamilton O. Smith** ("Inventors") hereby sells, assigns, transfers, and sets over to **The Institute of Genomic Research ("TIGR")** having a place of business at 9712 Medical Center, Rockville, MD 20850 its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention known as ***Borrelia burgdorferi* Polynucleotides and Sequences** for which an application for patent in the United States of America has been executed by the undersigned Inventors on even date herewith (also known as United States Application No. 09/830,228, filed April 24, 2001, which is the national stage of International Application PCT/US98/12764, filed June 18, 1998), in any and all applications thereon, in any and all Patents therefor, and
- (b) in any and all applications that claim the benefit of the patent application(s) listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent applications or Patents therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application(s) listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application(s), and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable.

For further good and valuable consideration, the receipt of which is hereby acknowledged, **TIGR** hereby sells, assigns and transfers to **Human Genome Sciences, Inc. ("Assignee")** having a place of business at **9410 Key West Avenue, Rockville, MD 20850**, its successors, assigns and legal representatives, its entire right, title and interest for the United States and all other countries in and to all of the rights, titles, and interests sold, assigned, transferred, and set over by the Inventors as set forth herein above.

The Inventors and TIGR each further agree that Assignee may apply for and receive patents for said invention in its own name; and agree to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention, including all rightful oaths, declarations, powers of attorney and other papers; and agree to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agree to communicate to Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention and the history thereof; and agree to cooperate fully and completely with Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention and for vesting title to said invention and all patent applications and all patents on said invention in Assignee, its successors, assigns and representatives.

The Inventors and TIGR each agree to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

The Inventors and TIGR each hereby represent and warrant to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

The Inventors and TIGR each hereby grant power to the Practitioners at Customer Number 22195 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature: Claire Fraser Date: 8/30/02  
Claire Fraser

Inventor's Signature: Owen R. White Date: August 30, 2002 Mat. No. 9/13/02  
Owen R. White Reg. No. 46,789

Inventor's Signature: Rebecca Clayton Date: August 21, 2002 Mat. No. 9/13/02  
Rebecca Clayton Reg. No. 46,789

Inventor's Signature: Brian A. Dougherty Date: Sept 5, 2002  
Brian A. Dougherty

Inventor's Signature: Hamilton O. Smith Date: Sept 10, 2002  
Hamilton O. Smith

The Institute of Genomic Research

By: Damar Hawkins

Name: DAMAR HAWKINS

Title: VP, Administration

Date: 9/12/02

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned, **Raju Lathigra** ("Inventor"), hereby sells, assigns, transfers, and sets over to **MedImmune, Inc.** ("Assignee") having a place of business at **35 West Watkins Mill Road, Gaithersburg, MD 20878**, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention known as *Borrelia burgdorferi* Polynucleotides and Sequences for which an application for patent in the United States of America has been executed by the undersigned Inventors on even date herewith (also known as United States Application No. **09/830,228**, filed **April 24, 2001**, which is the national stage of International Application PCT/US98/12764, filed June 18, 1998), in any and all applications thereon, in any and all Patents therefor, and
- (b) in any and all applications that claim the benefit of the patent application(s) listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent applications or Patents therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application(s) listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application(s), and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application(s), including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable.

The Inventor further agrees that Assignee may apply for and receive patents for said invention in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention, including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention and the history thereof; and agrees to cooperate fully and completely with Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention and for vesting title to said invention and all patent applications and all patents on said invention in Assignee, its successors, assigns and representatives.



The Inventor agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

The Inventor hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

The Inventor hereby grants full power to Jonathan L. Klein (Reg. No. 41,119) of MedImmune, Inc., and to each of the Practitioners at Customer Number 22195 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date opposite his signature:

Inventor's Signature: \_\_\_\_\_

  
Raju Lathigra

Date: \_\_\_\_\_

8/29/02